Reconstruction System
155
DAS
150
Detector Array
160
Object
Object Positioner
170
X-rays
140, 141, 142, 143
Electron beam
130
Deflection Coils
120
Focusing Coil
110
Electron Source
100

Figure 1

Figure 2

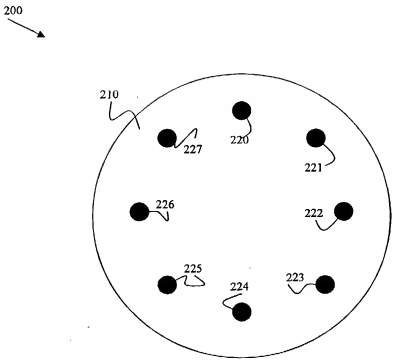
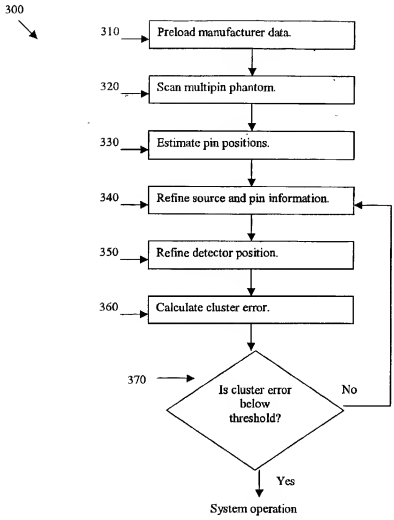


Figure 3


300
310
Preload manufacturer data.
320
Scan multipin phantom.
330
Estimate pin positions.
340
Refine source and pin information.
350
Refine detector position.
360
Calculate cluster error.
370
Is cluster error below threshold?
No
Yes
System operation

DFigure 4
400

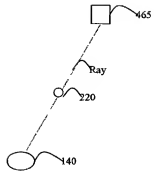


Figure 5
500

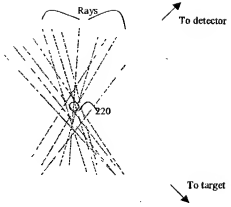
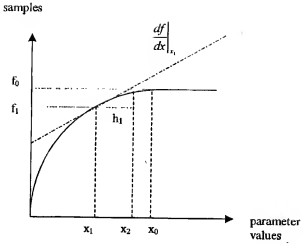


Figure 6

600



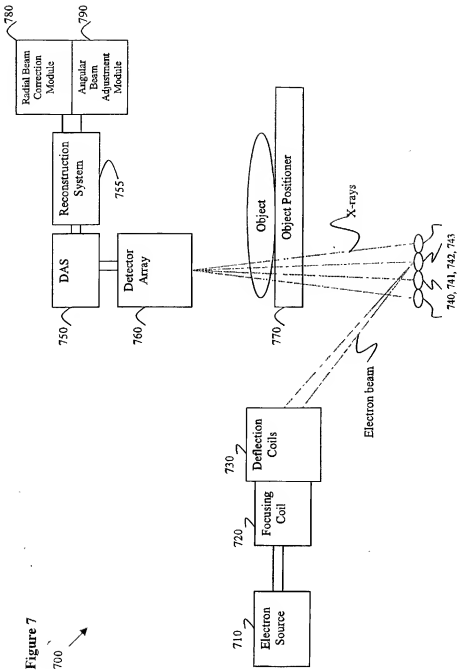
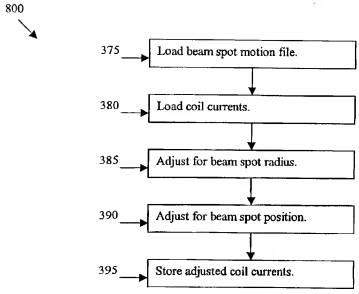

700
710
Electron Source
720
Focusing Coil
730
Deflection Coils
Electron beam
740, 741, 742, 743
770
Object Positioner
Object
X-rays
760
Detector Array
750
DAS
755
Reconstruction System
790
Angular Beam Adjustment Module
780
Radial Beam Correction Module

Figure 7

Figure 8


800
375
Load beam spot motion file.
380
Load coil currents.
385
Adjust for beam spot radius.
390
Adjust for beam spot position.
395
Store adjusted coil currents.